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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/981,665

10/16/2001

Takayuki Narita

81868.0034

7585

26021

7590

07/14/2004

HOGAN & HARTSON L.L.P.

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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/981,665

Applicant(s)

NARITA ET AL.

Examiner

Julie Lieu

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-27 is/are allowed.
- 6) ☒ Claim(s) 28,29,48 and 51-55 is/are rejected.
- 7) ☒ Claim(s) 30-47,49,50 and 56-81 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 28, 48, 51, and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by Budd et al. (US Patent No. 5,072,611). Yamane et al. (US Patent No. 6,140,931).

Claim 28:

Budd et al. discloses a motor bearing monitoring device, comprising:

- a. A status detection device 470 that reflects the state of a motor bearing (col. 6, lines 14-20)
- b. An abnormality determination device 50 that makes a determination whether the bearing is in an abnormal state based on the state of the bearing as detected by the status detection device (col. 8, lines 28-34); and
- c. An output device (inherent, as indicated in col. 8, lines 28-434) that outputs a result of the determination from the abnormality determination device.

Claim 48:

The status detection in Yamane is an acoustic detection device that detects acoustics generated by the bearing.

Claim 51:

Budd et al. also discloses determining the abnormality in the bearing by using a temperature sensor to detect the temperature of the bearing. Col. 8, lines 35-45.

Claim 52:

The abnormality determination device in Budd determines whether the bearing is near an end of service life thereof. Col. 8, lines 28-34.

3. Claims 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamane et al. (US Patent No. 6,140,931).

Claim 28:

Yamane et al. discloses a motor bearing monitoring device, comprising:

- a. A status detection device 50 that reflects the state of a motor bearing
- b. An abnormality determination device 52 that makes a determination whether the bearing is in an abnormal state based on the state of the bearing as detected by the status detection device; and
- c. An output device 53 that outputs a result of the determination from the abnormality determination device.

Claim 29:

The status detection device in Yamane is an impedance device that detects impedance in the bearing.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Budd et al. (US Patent No. 5,072,611).

Claim 53:

Budd fails to discuss clearly as to what kind of device is use as an output device to indicate the end of life of the bearing. However, the use of and alarm device such as a visual device or audible device is conventional in the art. Thus it would have been obvious to one skilled in the art to use the alarm device in the system of Budd because it is conventional and would provide indication of the detected status of the bearings.

Claim 54:

Budd et al. discloses a motor bearing monitoring device, comprising:

- a. A status detection device 470 that reflects the state of a motor bearing (col. 6, lines 14-20)
- b. An abnormality determination device 50 that makes a determination whether the bearing is in an abnormal state based on the state of the bearing as detected by the status detection device (col. 8, lines 28-34); and
- c. An output device (inherent, as indicated in col. 8, lines 28-434) that outputs a result of the determination from the abnormality determination device.

The bearing test device in Budd et al. is not used for testing the bearing of a disk driving motor. Nevertheless, it would have been obvious to one skilled in the art to use the same bearing test device in Budd et al. in any motor device to test the bearing wherein motor shaft and bearing device are used because the function of the bearing test device would not thereby be modified.

Claim 55:

Budd discloses that when there is an abnormality with the bearing, the system operation would be aborted to prevent further deterioration or total destruction of the bearings. Col. 8, lines 28-34.

***Conclusion***

6. Claims 30-47, 49, 50, 56-81 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 703-308-6738. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Hofsass can be reached on 703-305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Julie Lieu', is positioned above the printed name and title.

Julie Lieu  
Primary Examiner  
Art Unit 2636

Jul 11, 04